In re: Saxler et al. Serial No.: 10/617,843 Filed: July 11, 2003

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## In the Specification:

Please amend the paragraph beginning at page 12, lines 11-22 as indicated below:

Figure 1E illustrates removal of the mask 30 and formation of the ohmic contacts 40 in the recesses 41 defined by (i.e., adjacent) the second cap layer 24. The ohmic contacts 40 may be fabricated as described in U.S. Patent No. 6,316,793. The ohmic contacts 40 are formed on the first cap layer 22. The ohmic contacts 40 on the first cap layer 22 may be annealed at a relatively low anneal temperature. For example, in certain embodiments of the present invention, anneal temperatures of from about 400 to about 800 °C may be used. In other embodiments of the present invention the anneal step may be eliminated. Thus, the ohmic contacts 40 may be provided without the need for high anneal temperatures or to etch the Group III-nitride materials of a cap layer. The transistor may be further completed by addition of a gate 28 and/or gate structure, passivation or other such additional processing as known to those of skill in the art.

Please amend the paragraph beginning at page 13, lines 21-29 as indicated below:

The second cap layer 24' is selectively grown utilizing a mask as described above as a doped AlGaN layer, intentionally or otherwise, with an Al concentration of about 20% and doped with an n-type dopant such as Si to a concentration of about 2 X 10<sup>12</sup> cm<sup>-2</sup> total. The second cap layer 24' may have a thickness of about 10 nm. An additional layer 26' is selectively grown utilizing a mask as described above as an undoped AlGaN with an Al concentration of about 20% is also provided on the second cap layer 24'. The additional layer 26' may have a thickness of about 10 nm. Ohmic contacts 40 are formed in the recesses 41' adjacent the second cap layer 24' and the additional layer 26'. A gate contact 28' may be formed on the additional layer 26'.

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Please amend the paragraph beginning at page 14, lines 1-5 as indicated below:

The second cap layer 24" is selectively grown utilizing a mask as described above as an undoped AlGaN layer with an Al concentration of about 20%. The second cap layer 24" may have a thickness of about 20 nm. Ohmic contacts 40 are formed in the recesses 41" adjacent the second cap layer 24". A gate contact 28" may be formed on the second cap layer 24".

Please amend the paragraph beginning at page 15, lines 12-22 as indicated below:

The second cap layer 24''' is selectively grown utilizing a mask as described above except the mask is used to mask the gate region of the device. The second cap layer 24''' may be an undoped AlGaN layer with an Al concentration of about 20%. The second cap layer 24''' may have a thickness of about 5 nm. An additional layer 26'' is selectively grown utilizing a mask as described above as a doped AlGaN layer doped n+, for example, doped to a carrier concentration of from about 10<sup>18</sup> to about 10<sup>20</sup> cm<sup>-3</sup>. The additional layer 26'' may have an Al concentration of about 20%. The additional layer 26'' may have a thickness of about 10 nm. Ohmic contacts 40' are formed on the additional layer 26''. A gate contact 42 may be formed on the first cap layer 22''' in the recess 41''' formed by the second cap layer 24''' and the additional layer 26''.

Please amend the paragraph beginning at page 14, lines 23-31 as indicated below:

Figure 5 shows a transistor according to further exemplary embodiments of the present invention, in which gate and ohmic contacts are both formed in regrown recesses. A channel layer 520 and a first cap layer 522 may be formed on a substrate 510 as described above (it will be appreciated that the substrate 510 may include buffer layers and/or other layers). The first cap layer 522 may be masked to expose portions of the first cap layer 522, and second cap layers 524 may be formed on the exposed portions. The mask may then be removed to leave recesses 541 adjacent the second cap layers 524. Ohmic and gate contacts 540 and 528 may be formed in the recesses 541, as shown.

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Please amend the paragraph beginning at page 14, line 32 through page 15, line 10 as indicated below:

Figure 6 shows a transistor according to other exemplary embodiments of the present invention, in which gate and ohmic contacts are both formed in regrown recesses, but on different nitride-based layers. A channel layer 620 and a first cap layer 622 may be formed on a substrate 610 as described above (it will be appreciated that the substrate 610 may include buffer layers and/or other layers). The first cap layer 622 may be masked to expose a portion of the first cap layer 622. A second cap layer 624 may then be formed on the exposed portion. An additional mask may then be formed on the second cap layer 624, leaving spaced apart portions of the second cap layer exposed. Additional layers 626 may be formed on these exposed portions. The masks may be removed to leave recesses 641 that expose first and second portions of the first cap layer 622 and a portion of the second cap layer 624. Ohmic and gate contacts 640 and 628 may be formed in the recesses 641, as shown. It will be appreciated that the order of masking and contact formation operations may be varied.